

Drum Muffling Techniques

by Bob Saydlowski, Jr.

The subject of dampening drums has been a problem for many drummers. Some of the modern methods used to effectively muffle drums are:

Internal Dampers

Internal muffling is the most popular method used by drum manufacturers. A round padded disc, or double padded squares, press up against the drumhead when tightened, to control overringing.

Even though the internal muffler provides variable degrees of dampening, physically, it is the wrong method. The natural movement of a drumhead when struck is down, not up. When an internal damper presses up on the head, the head is choked immediately after being hit, and the movement of the head is severely restricted. Even when the damper is "off" and the drum is hit hard, the damper is still basically "on," due to extreme head motion. Internals have also been known to rattle in the off position, causing a problem when close miking. And, by putting an internal muffler and its control into a drum's shell, the acoustic resonance of the drum itself is partially harmed.

Bass drums have used internal felt stripping for years, but some manufacturers have had the insight to give the bass drum its own adjustable strip muffler. Gretsch was the first to use this. Sonor followed suit by using an adjustable double felt-strip damper.

Blankets, pillows, and the like can be stuffed inside bass drums for muffling. And there is a new product designed expressly for bass drums, called *Drum Muff*. A thick piece of polyfoam is cut at the factory to fit snug inside your drum shell, covering approximately the lower 1/3. The top of the *Drum Muff* is cut into "waves," and it is claimed to get that "muffled punch sound" without the worry of readjusting or restuffing.

External Dampers

Technically this is a better way to dampen drums, since the drumhead's

natural movement is not restricted. Studio players have been talking about the benefits of external muffling for years. All of the current external dampers clip onto the rim of the drum, and pressure is adjusted by a threaded top-wing bolt. Another good point about externals is that they may be used in multiples for dampening different areas of the drum. No need to drill holes in your drum for additional internal mufflers. When external mufflers are used, the sound of the drum is not "stopped" until the head returns to rest from its downward movement.

Decay time is decreased and overtones are significantly cut off. Also, most external mufflers are on a swivel so the pad may be moved around within a certain radius, or totally released from the head in a second.

Rogers was the first company to develop the external damper, the *Super-X*. Since then, Sonor, Tama, and Drum Workshop have all joined the bandwagon. In fact, Tama has made their *Quick-Release* dampers an option on their *Superstar* line of drum kits.

Even when orchestral percussionists dampen a bass drum with their knees, this is also a form of external muffling. External bass drum clamp mufflers for drum kits and symphonic bass drums have been available for a while. These also have sprung-steel connectors and are pressure-adjustable.

Adhesive Dampers

Adhesive dampers are a fairly new idea offering a constant degree of muffle. Ludwig's felt muffler pads range in size from 2" to 8" and can be strategically adhered to a drumhead to cut down overtones and ring. The question is where to place them. Striking the drum and putting your hand over different spots on the head sometimes helps you to feel where the unwanted overtones are coming from. Since most overtones come from the outer edges, a good bet would be to place these felt pads near there. On a bass drum, the 4 o'clock and 8 o'clock positions are suggested. Elek-

Trek has adhesive felt strips which can be cut to any size from a roll and attached to the head in effective locations, much like the Ludwig pads.

That "studio sound" has become the current rage. Manufacturers are scrambling to come out with a product that will help drummers get that "sound" in live performance. *Deadringers* are 1" thick polyester foam rings which adhere to the inside of the drumhead blocking out unwanted overtones that come from the edge. *Deadringers* eliminate ring, and at the same time, adjust the pitch of the drumhead downward. Using them on a bass drum gives more definition and punch. Ideal in the studio, and in live rock applications, they work well to remove the ring from tom-toms.

Eggheads are adhesive rings made of open-celled foam, a bit different from *Deadringers*. *Eggheads* are only 1/2" thick, and instead of adhering the foam itself to your mylar head, an *Egghead* has a mylar backing with a tough adhesive, as well as a chrome Mylar surface covering. Once an *Egghead* is put on, it is very difficult to remove it by hand. They are best used by the drummer who wants a shade of natural tone still left in the drum.

TongaRings are made of pressure-sensitive mirror-coated Mylar. They cover the top of the drumhead, leaving the head itself exposed only where a sound-dot would ordinarily be. The head will be an exact inversion of a sound-dot head. *TongaRings* double the thickness of approximately 2/3 of the head. Along with a dampening effect, you also get a downward pitch modulation. The company's own tests claim 20% more modulation than a regular drumhead. The looser the drumhead and the harder you hit it, the more sliding pitch is realized. However, some players may not feel comfortable playing on such a slack batter head. Muffling is achieved, but *TongaRings'* primary purpose is for pitch bend—and they do work. Using different drumheads with *Deadringers*, *Eggheads*, and *TongaRings* will, of course, yield slightly different tones.

Other Methods

Through the years, drummers have come up with all sorts of ways to muffle their drums: strips of masking tape, gaffers tape, pieces of foam, tissues, napkins, tampons attached to drumheads, and wallets on snare drums. Another idea that is very workable is a square piece of felt taped on the drum hoop and allowed to rest on the head. When the drum is struck, the floppy felt piece moves up and away from the head due to the force of air, and immediately comes back down allowing free drumhead movement, but stopping ring and decay. A well-known drummer once talked of using a foam and leather wrapped tape-splicing block on his snare drum for a fat sound with no ring.

There are surely many other original ideas out there to effectively solve the muffling problem. Many young players cut pieces of fabric to drumhead size, put them under the head, and then tension the drum up. This is the *wrong* thing to do! Besides restricting drumhead movement and choking it, *all* the natural tone of the head itself is lost. It is much like getting the sound of a cardboard drumhead, if you can imagine it. The stick-attack sound overrides the acoustic drum sound.

Special tuning of the drums may also help for a bit of a flatter, funkier sound. On tom-toms, after all rods are tensioned evenly, try backing off the 9 o'clock and 3 o'clock positions one quarter of a turn. On bass drums, back off the top two rods a little bit. On double-headed drums, the use of internal, external, or adhesive dampers on *both* heads might be another alternative.

The subject of drum muffling has been a baffler for many years. Every drummer has his own sounds and needs and there are many methods currently available to choose from. With continued acoustical and physical research, more will come along. Your own experimentation is the best answer.



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